

We claim:

1. An aqueous primary dispersion comprising at least one polyurethane obtainable by reacting
  - 5 a) at least one polyisocyanate,
  - b1) at least one polyol containing the structural unit  $-[-\text{CH}_2-\text{CH}_2-\text{O}-]-$  one or more times,
  - b2) if appropriate at least one polyol other than b1),
  - b3) if appropriate at least one compound containing at least two isocyanate-reactive groups selected from thiol groups and primary and secondary amino groups,
  - 10 b4) if appropriate at least one monofunctional monomer having an isocyanate-reactive group, and
  - c) if appropriate at least one ionic or potentially ionic synthesis component, wherein
    - 15 the fraction of the structural units  $-[-\text{CH}_2-\text{CH}_2-\text{O}-]-$ , calculated at 42 g/mol, in the polyol b1) is from 10 to 90% by weight and
    - the fraction of the structural units  $-[-\text{CH}_2-\text{CH}_2-\text{O}-]-$ , calculated at 42 g/mol, in the sum of the components a) + b1) + b2) + b3) + b4) + c) is at least 3% by weight.
2. The primary dispersion according to claim 1, wherein the molecular weight of the polyol b1) is at least 500 g/mol.
- 25 3. The primary dispersion according to either of the preceding claims, wherein the polyol b1) is a copolymer comprising ethylene oxide and propylene oxide.
4. The primary dispersion according to claim 3, wherein the copolymer is a block copolymer.
- 30 5. The primary dispersion according to any of the preceding claims, wherein the polyol b1) includes at least one terminal structural unit  $-\text{CH}_2-\text{O}-\text{H}$ .
6. The primary dispersion according to claim 1 or 2, wherein the polyol b1) is a poly-esterol.
- 35 7. The primary dispersion according to any of the preceding claims, wherein the average particle size as measured by dynamic light scattering using the Mal-

vern® Autosizer 2 C is below 100 nm.

8. A process for preparing a primary dispersion according to any of the preceding claims, which comprises reacting components a), b1), if appropriate b2), if appropriate b3), and if appropriate b4) in the presence of water.
- 5 9. A process for preparing the primary dispersion according to any of claims 1 to 7, wherein dispersing takes place with shear forces below  $10^8$  W/cm<sup>3</sup>.
- 10 10. The use of a primary dispersion according to any of claims 1 to 7 in aqueous coating materials, adhesives, and sealants, for coating wood, wood veneer, paper, board, card, textile, leather, nonwoven, plastics surfaces, glass, ceramic, mineral building materials, metals, including coated metals, in producing films or sheets, for impregnating textiles or leather, as dispersants, as pigment grinding compositions, as primers, as adhesion promoters, as hydrophobicizers, as laundry detergent additives or as an additive to cosmetic formulations or for producing moldings or hydrogels and as seed in the implementation of a seed polymerization.
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